

GCSE Biology B (Twenty First Century Science)
J257/01 Breadth in Biology (Foundation)

Question Set 25

Multiple Choice Questions

1.

Fig. 5.1 shows the life cycle of a male chicken.

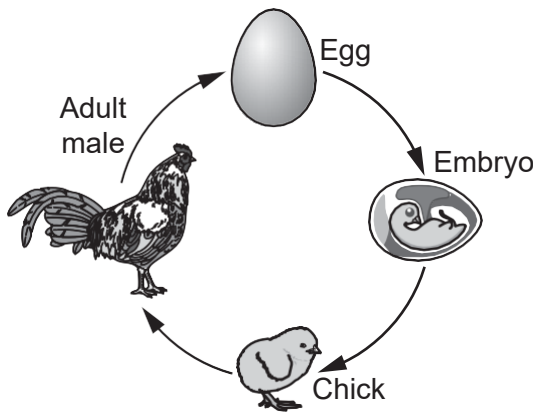


Fig. 5.1

(a) An adult male chicken has 78 chromosomes in a body cell.

The adult male chicken makes sperm cells.

How many chromosomes will there be in one sperm cell?

39

[1]

(b) As a chick grows, the number of cells that make up its body increases

What is the name given to the type of cell division involved in growth?

Tick (✓) **one** box.

Meiosis

Mitosis

Replication

[1]

(c) Chickens reproduce sexually.

Give **one** biological advantage of sexual reproduction.

(d) A chicken's sex is determined by genes located on the sex chromosomes. *genetic variation - advantageous for survival in the offspring as species can adapt to new environments.* [1]

Chickens have two different sex chromosomes, Z and W.

Male chickens are ZZ and female chickens are ZW.

Describe how sex determination in chickens is different to that of humans.

- humans: female - same 2 X chromosomes, male - different X & Y chromosomes [2]

- chickens: female - 2 different sex chromosomes, male - same chromosomes

Total Marks for Question Set 25: 5

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